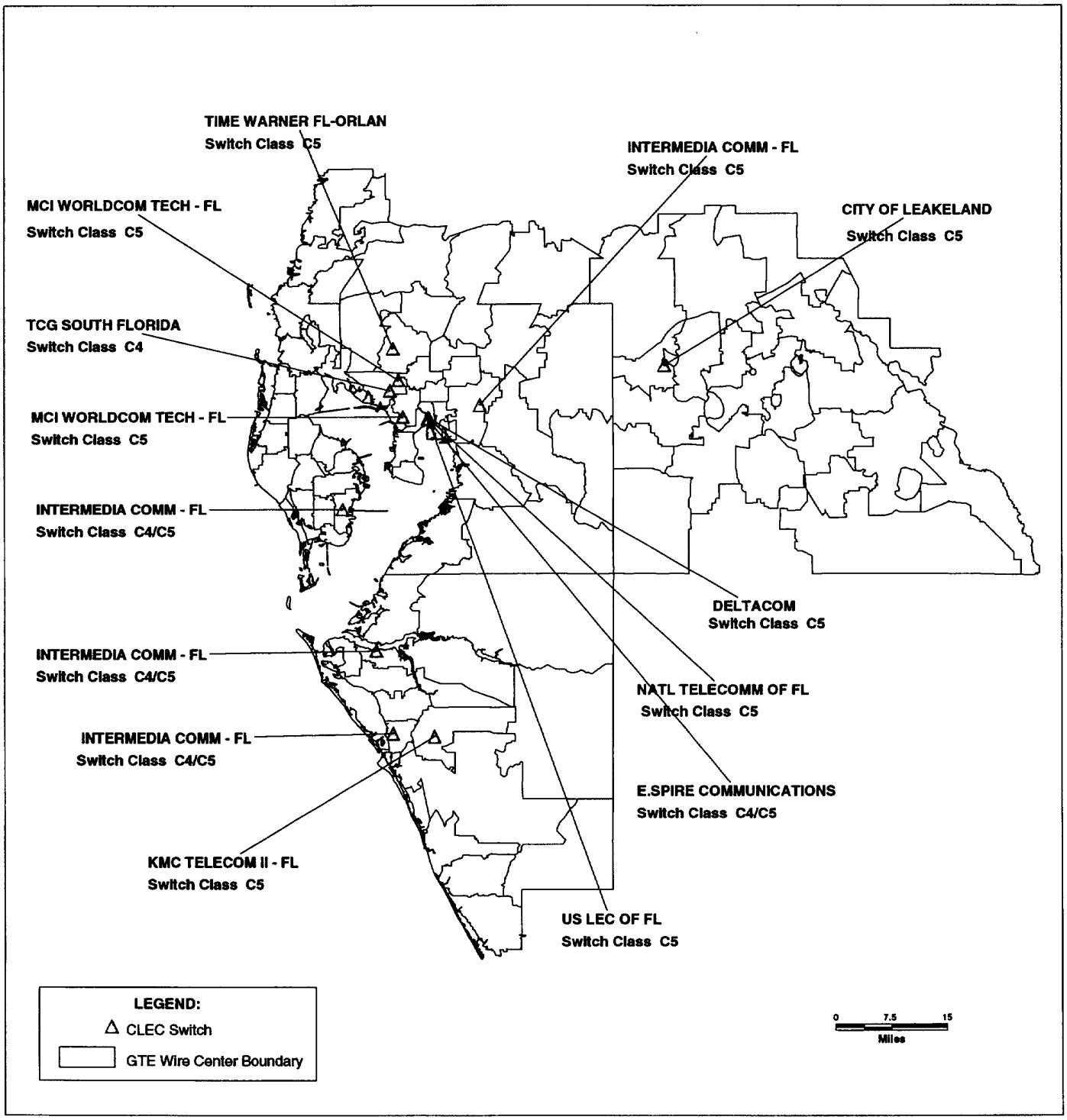
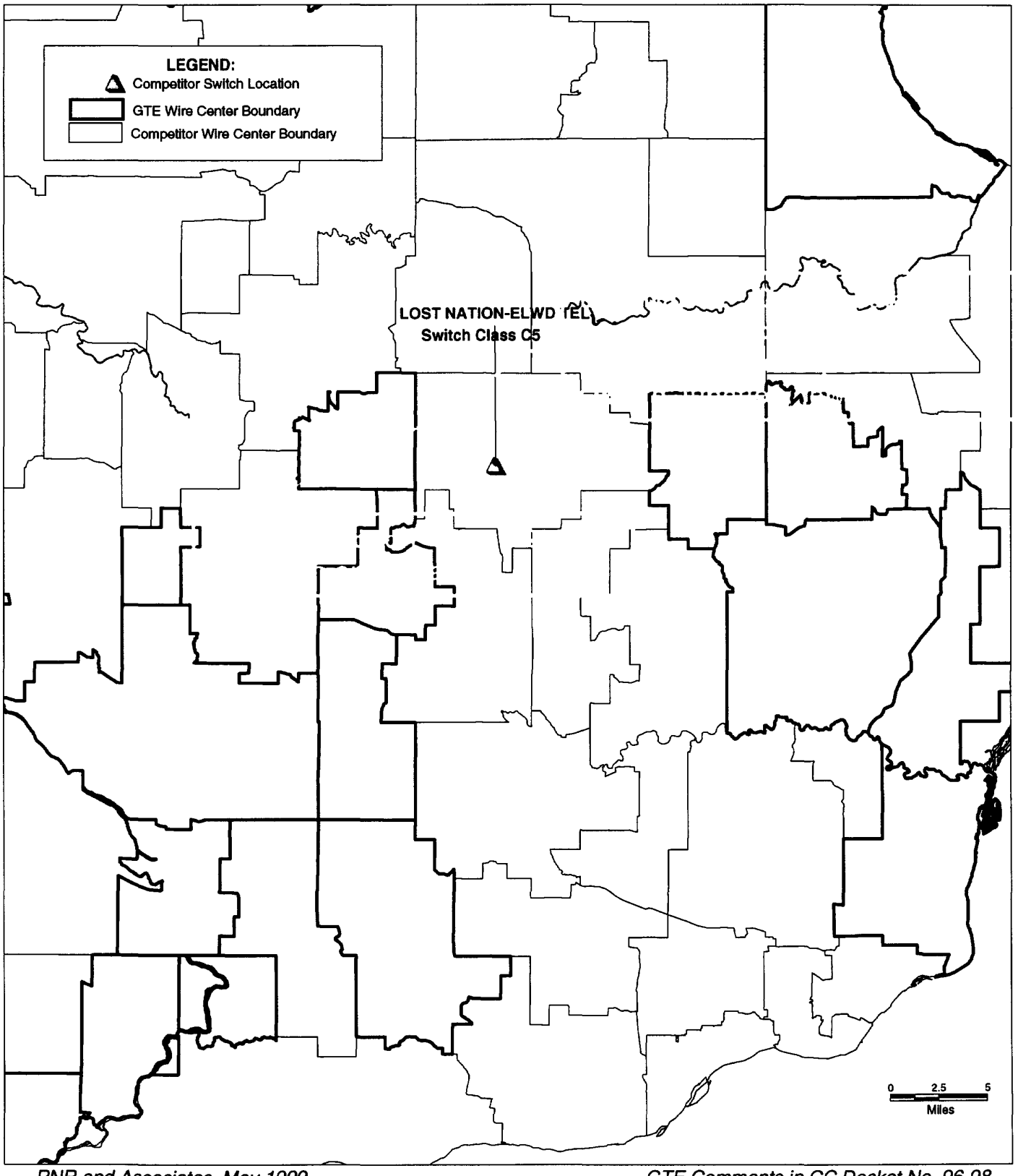
1.1 GTE Franchise Area - Florida: CLEC Switch Deployment In Tampa, St. Petersburg, Clearwater, Lakeland, Sarasota, and Bradenton



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

8.1 GTE Franchise Area - Oxford Junction, Iowa Competitive Switch Deployment



PNR and Associates, May 1999

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- KMC Telecom operates one class-five switch in Fort Wayne.
- Level 3 operates one class-five switch in Dallas and one in Los Angeles.
- Lost Nation-Elwood Telephone serves GTE's rural territory in Oxford Junction using one remote switch connected to the switch of its ILEC affiliate.
- MTC Communications serves GTE's rural territory in LaBelle, Ewing, and Lewistown using three remote switches connected to the switches of its ILEC affiliate.
- MCI WorldCom operates four class-five switches in Dallas, one in Tampa, and three in Los Angeles.
- MGC Communications serves Los Angeles using two class-five switches.
- MediaOne operates one class-five switch in Los Angeles.
- NextLink operates one class-five switch in Dallas and three in Los Angeles.
- Teligent operates one class-five switch in Dallas, another in Tampa, and a third in Los Angeles.
- Time Warner Telecom serves both Dallas and Los Angeles using a class-five switch in each market.
- US LEC operates one class-five switch in Tampa.
- USXCHANGE operates one class-five switch in Fort Wayne.
- Winstar operates one class-five switch in Dallas, one in Tampa, and three in Los Angeles.

GTE's unique experience as an ILEC serving the full panoply of markets in the United States therefore demonstrates that CLECs can compete effectively in any market using their own switching.[30]

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[30] In the Act's legislative history, Congress stated that the unbundling requirement's purpose is to require ILECs to share "control over the essential facilities needed for the provision of local

2. Numerous Manufacturers Are Targeting CLECs With Switches That Are Highly Scalable, Able To Serve Remote Territories, and Are Very Inexpensive.

While switch manufacturers at one time primarily catered to the needs of ILECs, these same manufacturers have now developed products that are targeted specifically to the CLEC market. (This development is not surprising, given that CLECs have deployed 439 more switches than the RBOCs and GTE combined since the Act was passed. UNE Fact Report at I-1.) These switches targeted to CLECs are inexpensive, highly scalable, and can serve territories spanning as far as 1,300 miles in diameter -- guaranteeing that even the smallest CLECs can self-supply their own switching without substantial up-front expense. NECI Report at 9-10, 20-21. CLECs need therefore only purchase the switching capacity and functionality they currently require, confident that they will be able to expand economically and without any service interruptions.

The three major United States switch manufacturers design scalable switches expressly for CLECs. Nortel offers the DMS-10 Local Switch, which is designed to serve markets smaller than 12,000 lines, *id.* at 12, "at a price that has put it at the center of the entrepreneurial strategies of Competitive Local Exchange Carriers across North America," UNE Fact Report at I-28 (citation omitted). Lucent markets its 5ESS-2000 switch directly to CLECs, noting that "[w]ith a minimal investment in hardware, real estate and staff, emerging competitors can quickly provide

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telephone service." H.R. Rep. No. 104-204, at 49 (1995). Although Congress stated that the "equipment with capabilities of routing calls" fit this definition, whatever predictive judgment or assumptions Congress may have harbored in 1995 are swamped by the wealth of real-world market evidence. The fact remains that Congress did not *mandate* the unbundling of switching or any other element. Congress required the Commission to apply substantive standards that must take into account the availability of substitutes in the market.

telecommunications services and support a large number of customers and services." *Id.* (citation omitted). The smallest switch configuration in this product line -- the Very Compact Digital Exchange -- is expressly designed for CLECs "targeting small communities, rural areas, and private network locations." NECI Report at 12. Likewise, Siemens touts its DCO switching system as "a local switching exchange designed to serve the small to medium size markets as well as a low cost solution for Competitive Local Exchange Carriers (CLECs)." UNE Fact Report at I-28 (citation omitted). These switches support a full range of services -- local and long-distance, ISDN, Internet access, wireless PCS, Advanced Intelligent Network Services, and interactive and multimedia services. *Id.* at I-28-29. Moreover, these switches can be used to serve any type of customer, from the smallest residence to the largest business.[31]

In addition, many new, smaller switch manufacturers -- like Castle Networks and Coyote Technologies -- target the CLEC market exclusively. *Id.* at I-29. Castle Networks' C2100 Services Mediation Platform is "designed to extend the range of class-five services to smaller markets where it is not cost effective to use 5ESS or DMS 500, while providing a platform for the creation of new services." *Id.* (citation omitted). Coyote's DSS switch "is designed to secure the customer threshold and economic benefits of smaller switches, without some of the feature compromises that smaller switches impose." *Id.* (citation omitted). Coyote's switching solutions provide "CLECs . . . with cost-effective, scalable solutions that enable them to enter new markets with revenue-generating services." *Id.* (citation omitted).

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[31] *See* Kahn Declaration at 10 ("switches and transport . . . are supplied without distinction by customer type").

All of these switching products, whether supplied by large or small manufacturers, are available at costs well within the reach of even the smallest CLECs. On a per-line basis, prices declined over 60 percent from 1986 to 1996 and are projected to fall another 12 percent by 2000. *Id.* at I-28. Both the Commission and IXCs like AT&T and MCI WorldCom have endorsed the view that switches are available at prices below $500,000, NECI Report at 20-21 -- a price that is made much easier to pay by the fact that switch manufacturers offer CLECs financing on extraordinary terms. UNE Fact Report at I-30-31.

The switches marketed to CLECs by equipment manufacturers can be deployed very quickly.[32] Lucent has developed "prefab central offices" specifically to reduce installation time for CLECs -- "the entire process, from prefab to deployment of service takes 40 days." *Id.* at I-30 (citation omitted). According to e.spire -- a CLEC that has deployed four switches in GTE's Tampa and Dallas territories alone -- its typical switch installation takes "'[n]o longer than 28 weeks from the time a competitive provider places an order with its switch vendor to the time the

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[32] The Commission should not confuse this issue -- the speed with which a CLEC switch can be deployed -- with any supposed delays that CLECs that are self-providing switching face in receiving "hot cuts" from ILECs. To the extent that CLECs face any such delays, the Commission should remedy the problem by enforcing its *existing* requirement that ILECs deliver unbundled loops to CLEC switches within a reasonable time, with a minimal service disruption, and of the same quality as loops the ILEC uses to serve its own customers. *See In re Application of BellSouth Corp. for Provision of In-Region, InterLATA Services in Louisiana*, Memorandum Opinion and Order, CC Docket No. 98-121, 13 FCC Rcd 20599, at ¶ 185 (1998) ("*BellSouth Order*"). The Commission cannot, however, require switching to be unbundled to avoid the need for CLECs to procure hot cuts. Doing so would both ignore the limiting standards imposed on ILEC unbundling obligations by section 251(d)(2) and would injure competition -- all to address an undocumented problem that could be addressed with far less draconian solutions.

switch is turned up." *Id.* This process is aided by the fact that vendors offer systems on a "turnkey" basis, supplying all the technical expertise needed to get switches up and running. *Id.*

Switches marketed to CLECs are also able to serve numerous markets scattered over a wide geographic expanse. Many CLECs use their switches to serve multiple ILEC rate centers. Indeed, the average CLEC switch is used to serve 14 ILEC rate centers. *Id.* at I-23. AT&T has maintained that a single switch can readily be used to serve customers within a 125-mile radius -- a fact readily demonstrated by CLEC ITC Deltacom, which uses a switch in Columbia, South Carolina to serve Greenville (100 miles away) and Atlanta (190 miles away). *Id.* This distance can be expanded up to *650 miles* by attaching a remote switch to the CLEC's main switch. Nortel offers its Remote Switching Center-S that "[e]xtends a full complement of host switch features to subscribers up to 650 miles from a DMS-100 or DMS-500 host." *Id.* (citation omitted). The Lucent 5ESS "enables a remote switching module to be located in a different Local Access Transport Area (LATA) and up to 600 miles from the host." *Id.* at I-23-24 (citation omitted). Siemens offers switch remotes that can be configured to support as few as *24 lines*, guaranteeing that CLECs can reach even the smallest and most rural markets with their own switches. The viability of this remote strategy is confirmed by the fact that CLECs are already serving GTE's small markets like Myrtle Beach and rural areas like Oxford Junction, LaBelle, Ewing, and Lewistown using remote switches. PNR Report at 48, 66, 69.

Given that switches can be equipped to serve areas 650 miles from the switch location, the entire continental United States could be reached by the CLEC switches currently deployed in New York, Atlanta, Dallas, Denver, Spokane, St. Paul, and Los Angeles alone. NECI Report

at 19 & Attachment C. Assuming conservatively, however, that the effective range of a switch is only 125 miles, the great majority of the continental United States could still be served just by the CLEC switches that are operational *today*. *Id.* at 20 & Attachment D.

3. Numerous Substitutes for Traditional Wireline Switches Are Available in the Marketplace.

In addition to purchasing and using their own smaller wireline switches, CLECs can use other switching equipment as a substitute for ILEC switches. Because CLECs can use IXC switches, wireless switches, and packet switches to provide local service, long distance companies, wireless carriers, and ISPs can have ready opportunities to begin bundling their products with local service.

Long-Distance Carriers' Switches. Switches like Nortel's DMS-500 and Lucent's 5ESS are now routinely configured to support both local and long-distance services. UNE Fact Report at I-31. AT&T is already using 34 of its roughly 145 4ESS switches to provide competitive local service in 379 rate centers. *Id.* at I-32.

Wireless Switches. All of the major switches in the marketplace today are capable of handling both wireline and wireless communications. *Id.* Many of the switches that wireless carriers are using -- including the Lucent 5ESS, Nortel DMS 100, and Ericsson AXE-10 -- are the same switches used by wireline LECs. *Id.* Wireless carriers operate over 3,300 switches in the United States, approximately 2,500 of which are owned by carriers other than BOCs and GTE. *Id.* These switches can be outfitted to provide local service and used as a facilities-based springboard to penetrate new markets.

Packet Switches. According to a conservative estimate, CLECs have already deployed 50 packet switches -- switches that are already being used to siphon local voice traffic from ILEC voice networks. *Id.* at I-33-34. Numerous other CLECs have likewise announced major investments in packet switches to provide IP telephony. *Id.* at I-34. Overall, packet switches are much more cost-efficient than circuit switches and are therefore even easier for CLECs to deploy. *Id.*

4. CLECs That Are Self-Supplying Their Own Switching Are Succeeding in the Marketplace.

The brisk revenue growth enjoyed by CLECs who are providing their own switching readily demonstrates that such CLECs have no difficulty competing effectively in the marketplace. Looking at a few typical examples of CLECs operating in the eight GTE markets surveyed by PNR:

- e.spire, which earned only $0.3 million in revenues in 1995, collected $156.7 million in 1998 -- an increase of 12,967 percent -- and earned $58.1 million in the first quarter of 1999. NECI Report at 22.

- Intermedia Communications, Inc. has been similarly successful deploying its own switches -- growing its revenues from $38.6 million 1995 to $712.7 million in 1998. *Id.* at 23.

- Time Warner Telecom increased its revenues from $6.9 million in 1995 to $121.9 million in 1998 -- an increase of 1,667 percent. *Id.*

- US LEC grew its revenues from $6.5 million in 1997 to $84.7 million in 1998 -- an increase of over 1,200 percent in just one year. *Id.*

The factual record is thus clear that CLECs have ample alternatives available to ILEC switching and that CLECs relying on these alternatives can compete effectively. Hundreds of

CLECs are self-providing switching in markets across the country -- from the largest metropolitan markets like Los Angeles and Dallas to the smallest rural markets like Oxford Junction and LaBelle. Switch manufacturers are directly targeting their products to the CLEC market, ensuring that scalable switching products are available for even the smallest CLECs. Every marketplace indicator therefore points to the fact that CLECs do not need access to ILEC switching to compete effectively. Under any reasonable interpretation of section 251(d)(2)'s "impair" standard, switching therefore cannot be subject to unbundling.

B. A National Competitive Market Exists for Operator Services and Directory Assistance. Section 251(d)(2)'s "Impair" Test Therefore Precludes the Commission From Ordering ILECs To Provide Unbundled Access To These Elements.

The Commission defines operator services (OS) as "any automatic or live assistance to a consumer to arrange for billing or completion, or both, of a telephone call,"[33] and directory assistance (DA) as a service that "allows subscribers to retrieve telephone numbers of other subscribers."[34] There is no question that the market for these services is competitive and therefore that CLECs would not be -- by any reasonable definition of that term -- "impaired" in their ability to provide service without access to ILEC OS and DA. Many CLECs are already self-providing these services on a national basis and are providing wholesale OS and DA to CLECs on terms that afford even the smallest competitors ready access. Moreover, both the Act

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[33] *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Second Report and Order and Memorandum Opinion and Order, 11 FCC Rcd 19,392, at ¶ 110 (1996).

[34] *BellSouth Order* ¶ 8 n.14.

and the Commission's rules already require ILECs to provide non-discriminatory access to their OS and DA databases, and all of the other labor and equipment required to provide these services is readily available on the open market. No barriers to entry therefore preclude any CLEC from self-providing or purchasing wholesale OS and DA services.

Numerous CLECs are currently self-providing OS and DA services. In the eight GTE markets studied by PNR, AT&T, Frontier, MCI WorldCom, Teligent, and Time Warner Telecom all self-provide OS and DA services. PNR Report at 19. Indeed, AT&T, MCI WorldCom, and Sprint, all offer *nationwide* directory assistance service that provides "telephone listings anywhere in the United States." UNE Fact Report at IV-1 (citation omitted). AT&T markets "00 INFO" nationally to its presubscribed customers. *Id.* Both AT&T and MCI WorldCom offer DA using 10-10-XXX dial-around patterns, which are accessible from any telephone in the Nation. *Id.* MCI WorldCom launched its "10-10-9000" directory assistance service in October 1998 and AT&T has since introduced "10-10-ATT-00." *Id.* at IV-1-2. AT&T, MCI WorldCom, and Sprint also provide OS nationwide via toll-free 800 numbers. Using any of these services, customers may place calling card, collect, bill-to-third number, and person-to-person calls. *Id.* at IV-2.

A substantial number of CLECs also provide wholesale OS and DA, offering re-branded service to numerous CLECs. The largest wholesale OS and DA providers are Excell Agent Services, Teltrust, InfoNXX, Metro One, HebCom, and Frontier Communications. *Id.* at IV-4-5. Excell provides service on a nationwide basis as the wholesale arm of AT&T's national directory information service. *Id.* at IV-4. Teltrust provides service to numerous CLECs and IXCs -- including US Long Distance, MCI-WorldCom, and Qwest Communications -- marketing its

ability to "supply nationwide origination and termination services with a variety of live agent and automated network platform services, configured to each client's needs." *Id.* (citation omitted). InfoNXX markets its service as being "a true alternative to telephone company directory assistance." *Id.* (citation omitted). Metro One serves customers like AT&T, AirTouch, and Sprint, describing itself as "a leading provider of [enhanced directory assistance] for the telecommunications industry." *Id.* (citation omitted). Numerous CLECs operating in GTE's markets provide competitive DA to their end-user customers through arrangements with these wholesale providers. For example, GST provides directory assistance using services obtained from Metro One; Cox Telecommunications provides directory assistance using services obtained from Teltrust; and Winstar provides directory assistance services obtained from Frontier. *Id.* at IV-5. These arrangements are available to CLECs of any size, as wholesalers offer packages of as few as 1000 data listings at readily negotiable prices. *Id.*

Moreover, no entry barriers preclude CLECs or would-be OS and DA wholesalers from entering the market. To provide competitive national OS and DA services, CLECs need four things: access to a national database that provides name, address, and telephone listings; operators; computers; and a building in which to house a call center. Each of these four items is readily available on the open market.

CLECs have an abundance of database options at their disposal to provide the listing information needed to self-supply or wholesale OS and DA services. Section 251(b)(3) of the Act requires all LECs to provide to any requesting company "nondiscriminatory access to . . . operator services, directory assistance, and directory listings." Pursuant to this section, the FCC

adopted Rule 217, which requires all LECs to "permit competing providers to have access to and read the information in the LEC's directory assistance databases." 47 C.F.R. § 51.217. Rule 217 thus guarantees CLECs non-discriminatory access to every LEC OS and DA database.[35]

Likewise, Section 222(e) of the Communications Act requires all telecommunications carriers to provide their subscriber information "to any person upon request for the purpose of publishing directories in any format." This information is used by a significant number of firms -- including Metromail, VoltDelta, InfoUSA, Dun & Bradstreet, R.R. Donnelley, Axicom Corporation, and The Berry Company -- to supply name, telephone number, and address information on a local and nationwide basis. UNE Fact Report at IV-8. These companies typically contract with LECs to obtain listing information that is updated on a daily basis, thereby ensuring database accuracy. *Id.* InfoUSA, for example, invests $30 million per year to compile its yellow and white page listings database, which is updated daily, and it "will soon be able to update [its] customers daily, weekly, or monthly via e-mail." *Id.* at IV-8-9 (citation omitted). Many of these companies provide information on a per listing basis or supply their entire databases on magnetic tapes or CDs. *Id.* at IV-9 This same information is also widely available

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[35] Indeed, Rule 217 already requires LECs to provide CLECs access to "operator services and directory assistance services . . . in their entirety, including access to any adjunct features (*e.g.*, rating tables or customer information databases) necessary to allow competing providers full use of these services." LECs are required to provide these services on a branded or unbranded basis so that CLECs may substitute their own brand-name announcements for those of the LEC. In light of these requirements, the only effect of requiring ILECs to provide unbundled OS and DA access would be to require them to provide this already available service at a TELRIC price. As Professor Kahn explains, combining a mandatory sharing obligation with a requirement that an element be sold at such a price would kill every incentive for CLECs to invest in their own OS and DA and would severely hamper the competitive viability of existing wholesale OS and DA providers. *See* Kahn Declaration at 13-14.

on the Internet free of charge. Switchboard.com -- the most widely used directory service Web site -- was ranked by one study as one of the top 10 most frequently visited sites on the Internet. *Id.* at IV-2. Other major DA Web sites include Alta Vista People Search, Yahoo! People Finder, InfoSpace, InfoNow, Zip2.com, and AT&T's new www.anywho.com. *Id.* at IV-2-3.

Operators, the second major input for any OS and DA provider, are also widely available in the marketplace. ILECs obviously exercise no control over the labor market and have no ability to preclude competitors from hiring and training the personnel needed to provide OS and DA services. Thus, both AT&T and MCI WorldCom employ their own operators; Teltrust employs over 900 operators; and in March 1999, Excell announced an "aggressive hiring campaign" to employ 2,000 new operators to meet the demands of being named the wholesale agent for AT&T's national directory service. *Id.* at IV-10.

Likewise, ILECs exercise no control over the market for OS and DA computer equipment or real estate. Nortel, IBM, Lucent, Volt Delta, PC Plus, and Alcatel provide the operator platforms, database applications, and search engines required to provide competitive OS and DA services. *Id.* Call center real estate is also widely available, as demonstrated by the actions of existing wholesale OS and DA providers. Teltrust, for example, operates "four state-of-the-art megacenters" that serve the entire country; HebCom operates five regional call centers that serve the whole United States; Excell operates six call centers, *each* serving the entire country; InfoNXX provides nationwide service using four call centers; and McLeod USA operates a single national call center. *Id.* at IV-9-10 (citation omitted).

Given both the ubiquity of the inputs necessary to provide OS and DA services, and the fact that numerous CLECs are currently self-supplying or wholesaling OS and DA services, section 251(d)(2)'s "impair" test precludes the Commission from requiring these elements to be unbundled. At least five CLECs have demonstrated an ability to self-supply this element just in the eight GTE markets studied by PNR, and at least six other CLECs provide national OS and DA services on a wholesale basis. CLECs entering the market therefore have ample choices among OS and DA providers and are free, facing no barriers in their ability to secure the necessary inputs, to self-provide these services. The success of OS and DA wholesalers confirms that any excess capacity created by self-supplying CLECs can readily be resold, demonstrating that even economies of scale present *no* barrier to entry in this market. With so many OS and DA options available to CLECs on a national basis, ILECs cannot be required to provide unbundled access to OS and DA under any reasonable interpretation of section 251(d)(2)'s "impair" test.

C. Numerous CLECs Are Either Building Their Own Signaling Networks or Are Purchasing Signaling Service From Wholesalers. Section 251(d)(2)'s "Impair" Test Therefore Precludes Signaling From Being Subject To Unbundling.

CLECs seeking alternatives to ILEC-provided signaling likewise have ample alternatives available in the marketplace. *First,* as demonstrated by the experience of numerous CLECs operating in the GTE markets studied by PNR, competitors are readily able to provide their own signaling services. Numerous firms supply the equipment necessary to operate a signaling network -- including Lucent, Tekelec, Nortel, Alcatel, IEX Corporation, SummaFour, and Siemens -- and this equipment can typically be mixed and matched because it is based on

standard interfaces and protocols. NECI Report at 47. Given the widespread availability of signaling hardware and software, in the eight GTE markets studied by PNR alone, 12 CLECs -- including Allegiance Telecom, AT&T, e.spire, Frontier Communications, GST, HTC Communications, and Lost Nation-Elwood Telephone -- have opted to build their own signaling networks. PNR Report at 23. GST's President and CEO recently explained that, with its own SS7 network, the company is "reducing [its] reliance on third parties, increasing [its] speed to market for new services, lowering [its] operational network costs, and increasing [its] fraud protection capabilities." NECI Report at 47 (citation omitted). The fact that CLECs enjoy a competitive *advantage*, not disadvantage, as a result of deploying their own signaling networks is confirmed by the substantial revenue growth and ability to attract capital enjoyed by GST, e.spire, and other CLECs that are self-providing this service. NECI Report at 22-23, 58-59, Attachment F.

Second, CLECs seeking competitive alternatives to ILEC-provided SS7 can purchase signaling services from numerous wholesale providers, including GTE Intelligent Network Services, SNET, Illuminet, BTI Telecom Services, TNSI Telecom Division Services, NaviNet, Revcom, and Targus Information Group. *Id.* at 48-49. These providers -- which are experiencing sharp revenue growth as a result of building demand -- offer CLECs access and interconnection to SS7 networks, access to and storage of telephone numbers, customer databases and related services, and call set-up and management. *Id.* at 47, 50. CLECs purchasing signaling service from these wholesalers need only establish a single connection to the provider's network, and

interconnections are nationwide. Prices for wholesale signaling service are highly competitive and wholesale contracts are available to even the smallest CLECs. *Id.* at 49.

Because ample marketplace alternatives are therefore available to ILEC signaling, section 251(d)(2)'s "impair" test precludes that element from being subject to an unbundling obligation.

D. Because Network Interface Devices Are Inexpensive Off-the-Shelf Products Provided in a Competitive Market, They Do Not Satisfy Section 251(d)(2)'s "Impair" Test.

NIDs are an inexpensive, off-the-shelf piece of equipment that any CLEC can acquire on the open market from numerous non-ILEC sources. In the eight typical GTE markets surveyed by PNR, 17 of the operating 26 facilities-based CLECs -- including e.spire, Frontier, GST, Hyperion, ICG Communications, KMC Telecom, Lost Nation-Elwood Telephone, Teligent, and Winstar -- supply their own NIDs. PNR Report at 23. NIDs are manufactured by numerous competitors -- including Lucent, Sicor, Keptel, Gusto Communications, AMP, 3M, Charles Industries, Raychem, Reltec, and TII Industries -- and are available in any volume a CLEC could desire. UNE Fact Report at III-28. AT&T and MCI have placed the cost of a residential NID at only $25 (plus $4 per line for a protection block) and a business NID at only $40 (plus $40 for a protection block). *Id.* ILECs purchase their NIDs from these very same sources at the same prices, giving them no competitive advantage over CLECs in NID purchasing. Moreover, because the inputs required for NID installation -- labor, trucks, and screwdrivers -- are all also readily available to any CLEC in open competitive markets -- there is no reason why CLECs

cannot compete effectively without access to the ILEC NIDs. Section 251(d)(2)'s "impair" test therefore precludes NIDs from being subject to an unbundling obligation.[36]

IV. BECAUSE THE MARKETS FOR INTER-OFFICE TRANSPORT AND LOOPS ARE LOCALIZED, THE COMMISSION'S RULES MUST TAKE ACCOUNT OF DIFFERING CIRCUMSTANCES IN DIFFERENT GEOGRAPHIC MARKETS.

A. CLECs Located in Typical GTE Markets Are Deploying Their Own Networks Used To Provide Inter-Office Transport and Local Loops.

In the eight typical GTE markets studied by PNR -- as in markets across the country -- CLECs are deploying their own networks to self-provide interoffice transport and local loops. Indeed, all but one of the 26 facilities-based CLECs operating in these urban, suburban, and rural GTE markets provide their own transport, and 17 of the 26 provide their own local loops to business or residential customers. PNR Report at 23. As illustrated by the maps on the following three pages, competitors have deployed 1,290 miles of fiber in GTE's Los Angeles franchise, 477 miles of fiber in GTE's Tampa territory, and 175 miles of fiber in GTE's Lexington franchise. *Id.* at 11. Likewise, in Myrtle Beach and Oxford Junction, CLECs have almost completely duplicated GTE's ILEC network, allowing competitors to self-provide both inter-office transport and local loops. A profile of the CLECs operating in the GTE markets surveyed by PNR confirms the breadth of these competitive networks:

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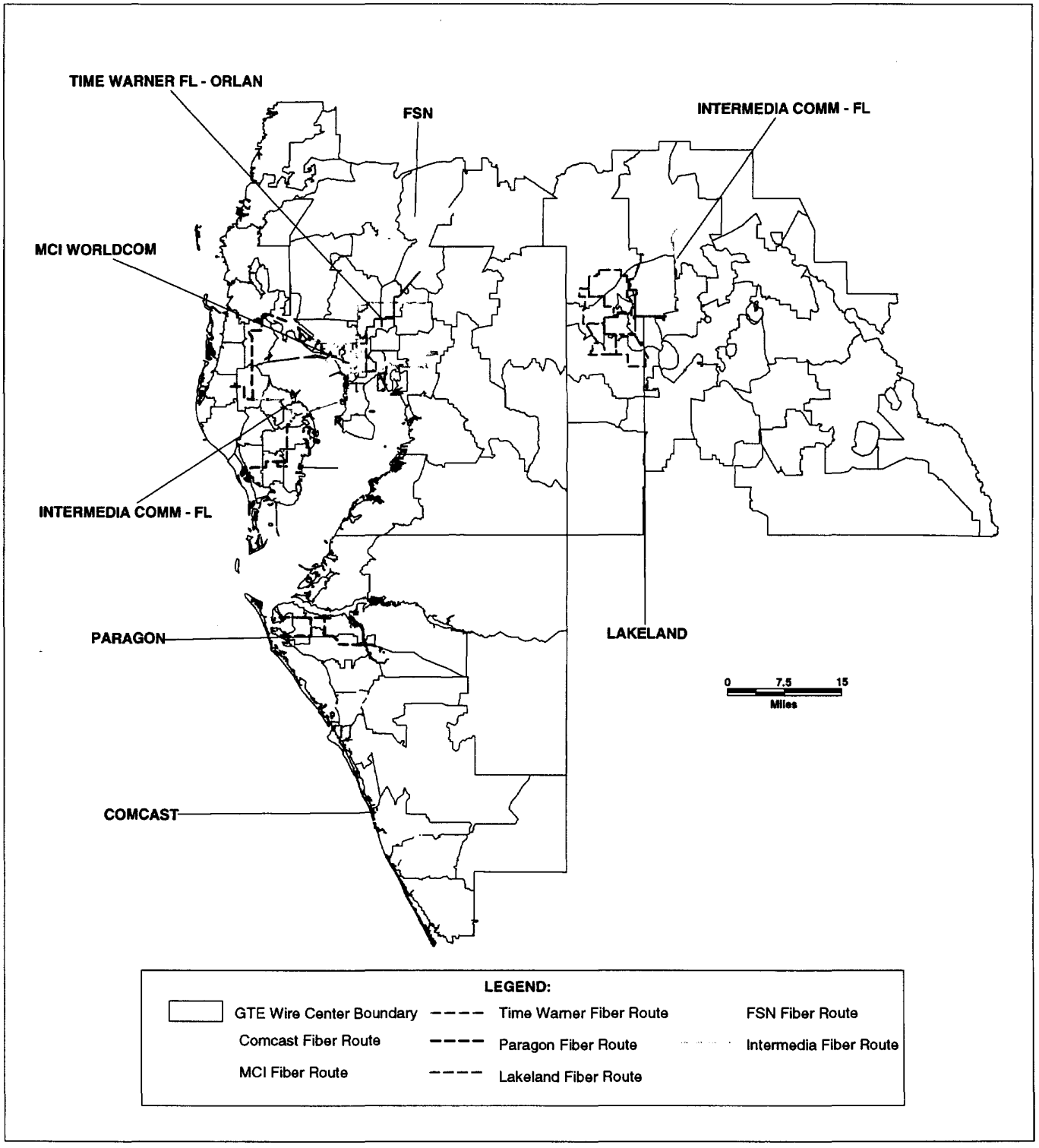
[36] Even if NIDs were not required to be unbundled as network elements, GTE is not likely to incur the costs of removing its NIDs from unbundled loops.

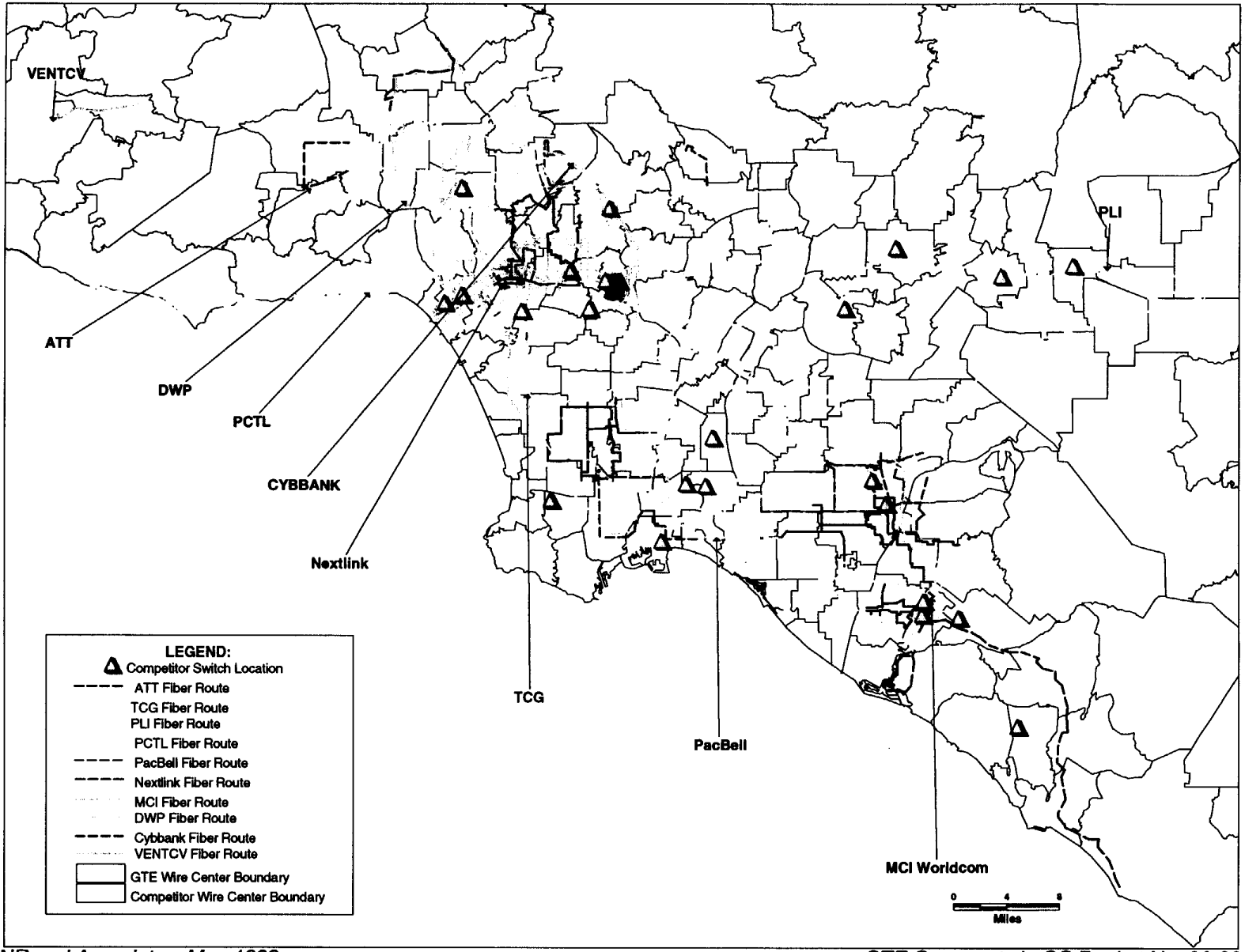
1.2 GTE Franchise Area - Florida: CLEC Fiber Deployment In Tampa, St. Petersburg, Clearwater, Lakeland, Sarasota, and Bradenton



PNR and Associates, May 1999

GTE Comments in CC Docket No. 96-98

3.2 GTE Franchise Area - Greater Los Angeles Area, California CLEC Fiber Deployment



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